Scottish Intensive Care Society
NEWSLETTER
Edition 7

SICS Annual Scientific Meeting 2001

The annual scientific meeting was held on Friday 26th January 2001 in the Cotterell Building at Stirling University. This venue has proved most successful, and the organization of the meeting was flawless, thanks to a dedicated band of organizers led by Louie Plenderleith.

The first address of the meeting was given by Dr JM Schneerson from Papworth, Cambridge, and he spoke on a topic which from time to time causes nightmares for all of us who work in intensive care – "**The Management of Prolonged Respiratory Failure."** Dr Schneerson discussed the deleterious effects of prolonged ventilation, and reviewed the causes of respiratory failure which might lead to this. In his unit, if there is a weaning problem, the first thing they do is to review the diagnosis, looking particularly at neuromuscular disorders, pre-existing or new cardiac disease, intra-abdominal pathology, metabolic disorders and psychological problems. After this a clear decision is made on the objectives; it may not be reasonable to expect a complete wean – night ventilation may be a reasonable objective. This done, Dr Schneerson then hopes to achieve a haemoglobin saturation of 90% or above, assess the upper airway and deflate the endotrachael tube cuff. If it is suspected that the airway is inadequately protected, then he puts dye on the tongue and looks for it in aspirated sputum. If excessive saliva production is a problem his unit uses propantheline. Turning to the psychological problems of weaning, Dr Schneerson stressed the importance of patient motivation and in particular of the effects of sleep deprivation. He said that much could be done by simple means such as attention to pain, anxiety, timing of drug administration, lighting, noise and temperature control. Dr Schneerson then went on to discuss weaning strategies, dividing them into two philosophies – 1) Rapid or gradual removal of support, 2) A policy of continued partial support which is slowly reduced. He clearly favours option 1 where the patient is just tried off the ventilator, tidal volume and respiratory rate being monitored. Time off the ventilator is gradually extended. Only if the patient cannot manage off the ventilator at all does he resort to partial support techniques such as SIMV and pressure support. This is probably at odds with our general experience as non-respiratory specialist ICUs. The question of how many specialist weaning units are needed in Britain, and where they should be situated was discussed during the questions period with no great conclusion being reached.

After a break for coffee and an opportunity to explore the extensive trade exhibition, we were treated to a very lively dissertation and practical guide by Bob Winter of University Hospital, Nottingham entitled **"Fungal infection: when to treat and what to use".** Dr Winter first warned us that fungal infections are on the increase. They constituted 2% of ICU infections in 1980, up to 5% in 1986, but he EPIC study showed that 17% of ICU patients suffered fungal infections. Of these, candida is the most common, being 75% of the total, with albicans being the commonest of these. Fungal infection was found to be the most common missed diagnosis revealed at post mortem, and up to 19% of these contributed to the death. Candida is a common constituent of the mouth and GI tract microflora, and translocation then permits bloodstream infection and dissemination. Most infections is endogenous, but outbreaks may occur. Bob went on to remind us that the differentiation between colonisation and infection can be difficult, but that isolation from normally sterile sites such as blood or CSF is diagnostic; isolation from sputum or urine is much less certain. The diagnosis is often presumptive and depends upon risk factors, colonization density and isolation from

multiple sites. Bob Winter then focused on the risk factors – neutropenia, long term CVP, Candida colonisation, broad spectrum antibiotics, length of ICU stay, long term venous cannulation, ventilation, multiple blood transfusions, haemodialysis, diabetes mellitus, corticosteroids immunosuppresion, TPN and the presence of a urinary catheter. Others have tried to evaluate these risk factors, and in one study, only TPN remained after logistic regression analysis. Another study showed that candiduria was not a reliable prediction of candidaemia. Other diagnostic tools include high resolution CT scan, elisa, PCR and enzyme immunoassay. Serological markers are generally unhelpful as they have either low sensitivity or low specificity or both.

He then touched on treatment, emphasizing that amphotericin B is the gold standard and that the liposomal preparation is less toxic but no more effective. Fluconazole is also less toxic but resistance develops quite quickly. There are new 'azole' drugs just coming onto the market. One of the great problems with fungal infection is when to treat, and Bob gave helpful advise on this, suggesting that in adult practice one should treat candiduria in a high risk patient whose clinical status was deteriorating; a single candida positive blood culture in an at risk patient, isolation of candida from any sterile body site (except urine) and histological evidence of yeast or mycelial forms in tissue from an at-risk patient. These situations constitute the bulk of the treatment recommendations of the British Society for Antimicrobical chemotherapy. Other situations where treatment is appropriate are endophthalmitis, a symptomatic patient with risk factors, asymptomatic high risk surgical patients and those patients with an increased predictive risk. Bob then gave us some advice about which agents to use, their advantages, disadvantages, side effects and toxicity. In summary, he felt that fungal infections in ICU were difficult to diagnose, that resistance to current drugs was becoming a problem, but that newer drugs were on the way. There was, inevitably, some discussion at the end of his talk on STD and fungal overgrowth.

Before lunch, the first session of the workshops was held. Delegates had the choice of attending two of the four workshops, one during this session, and one in the session immediately after lunch. The workshops were "Weaning and Extubation" by Dr Schneerson, "End of Life Management" headed up by Bob Winter," Clinical Cases", chaired by Graham Nimmo, and "Percutaneous Tracheostomy" by Dr Alf Shearer. As usual the workshops were very popular and well-attended. The choice of workshop topics is almost too good – it was very difficult to decide what not to go to!

Dr Schneerson held discussion groups where the problems encountered in difficult weaning and extubation were further explored.

Dr Nimmo very ably chaired the case presentations and the subsequent discussion. No report of these is included here, as the patients were felt to be sufficiently unusual to be identifiable.

Bob Winter led a lively discussion on 'end of life management' which was lent added pathos by the recent case of subarachnoid vincristine injection in his hospital (but not his ICU!). It was refreshing to hear somebody who appeared at least to see things rather more in black and white then I am sometimes able to do, and these are clearly issues to which he has given an immense amount of thought. He made several statements which should be helpful to many intensivists faced with making these decisions (which we all are). He emphasized that futility of treatment, not quality of life is the issue (therefore treatment should be all, or nothing). Patients are referred to intensivists in his unit by their original management team and there is discussion within and between these two groups. However, it is then the intensivists who make the decisions. This is a written policy in his unit, but the referring team have the right of appeal to another ICU consultant within or outside the Trust and the family have the right of appeal to "bring in" another doctor e.g. their GP. This enables a pretty clear-cut policy for withdrawal of treatment to be established and this policy is contained in the information booklet provided for patients and their relatives. The policy has been 'run by' one of the best medico-legal brains in the country and did not receive adverse comment. He ended on an even more contentious topic – that of "Triage by Resource".

Alf Shearer lent us his considerable experience in the execution and teaching of **"Percutaneous Tracheotomy".** His dissertation was, as always, absolutely lucid, with an attention to detail which can only be achieved by someone who has thought about it a lot and had extensive practical experience. Even those of us who have done the Dundee course will have learned something new from this workshop – comforting little tips like "make sure the endotracheal tube is long enough to push down and compress bleeding vessels if necessary ". This is obvious when one thinks about it, but it is so tempting to cut the tube short to reduce friction for the bronchoscope! I am sure that even the most timid of "PCT virgins" felt able to go off and get on with it after this expertly led workshop.

Following the second session of the workshops (so not quite the dreaded "first after lunch" slot), Professor Paul Hebert from Ottawa addressed the contentious issue of **"Blood Transfusion in the Critically Ill".** Professor Hebert

first outlined the background to the TRICC Study (Transfusion Requirements in Critical Care), wherein theoretical scenarios were advanced, and respondents were asked by questionnaire "when would **you** transfuse?" This was followed by a survey of 4470 patients in which the timing, quantity and rationale of transfusions was investigated. The factor causing the biggest variability in blood transfusion was not a clear-cut clinical indication, but the identity of the institution in which the patient was being treated. This aside, the possible reasons for transfusion were then posed. Was it supply dependency, risk of myocardial ischaemia, failure to adapt to anemia (age, disease severity, drugs etc.) or was it to give a safety buffer in case of further blood loss? Reasons for not transfusing were then postulated, amongst which were impairment of microcirculatory flow, risk of viral infection and cardiac consequences of transfusion. He pointed out that pathologic supply dependency is rare and that whilst immunosuppression leading to increased infection was a possibility, this is unlikely now we have leukodepleted blood. Twenty five centres, nearly all academic, participated in the TRICC study and patients were enrolled if their haemoglobin was less than 9 g, providing that they were volume resuscitated and not actively bleeding. These patients were then randomized into 2 groups, those whose Hb was kept between 7 and 9 (with 7 the trigger for transfusion) (the restricted group) and those whose Hb was kept between 10 & 12, with 10 the trigger (the liberal group). There was, as one would expect, a difference in the average volume of blood transfused to the groups, with averages of 5.2 units (liberal) and 2.5 units (restrictive).

The primary outcome was hospital mortality, and this was lower in the restrictive group (22.3% *v* 28.1%). The restrictive group also had lower organ failure scores, lower ICU mortality (4.9% *v* 9.6%) and lower 30-day mortality (8.7% *v* 16.1%). There was no difference in weaning times between the groups. The conclusions drawn from the study were that: 1) A restrictive transfusion strategy was associated with a lower ICU and hospital mortality; 2) A restrictive transfusion strategy resulted in a 54% reduction in red cell transfusion – and 33% more patients managed with no transfusion; 3) There was no effect on weaning; 4) A liberal strategy was associated with a higher incidence of pulmonary oedema.

Reasons postulated for improved survival in the restricted transfusion group were decreased pulmonary oedema, decreased immune suppression (it was not leukocyte depleted blood), increased DO2 because of reduced viscosity, and age of blood effects. Advice offered by Professor Herbert as a result of this study was:- Adopt a transfusion threshold of 7g and transfuse up to 9, except following acute myocardial infarction, when a threshold of 8g may be more appropriate.

The last presentation of the meeting was delivered by Professor Nigel Webster from Aberdeen, and was entitled **"Evolutions in Sepsis Management".** Professor Webster spoke as eruditely as ever. He started by giving us a frightening statistic – 1400 people will die with sepsis in the world ***every day.*** (I guess that is just for "the developed world"? How does one find these figures ?). The "septic scene" was then set with endotoxin taking centre stage and connecting with arachidonic acid metabolites, nitric oxide, free radicles, cytokines, hypochlorous acid, and adhesion molecules. He outlined how, after a septic challenge, there was a quick rise in P selectin followed by a more long-lived rise in E selectin. He then turned to the triad of pro-inflammatory cytokines, cytokine inhibitors and anti-inflammatory cytokine, and discussed how patients who have an imbalance in these three may die of sepsis. An explanation followed of how activated protein C (APC), Anti thrombin III and Tissue Factor Pathway Inhibitor prevent coagulation from becoming generalized and of the role of APC and tPA in the removal of microthrombi.

There is a lot of work going on in the sepsis field at the moment, and Professor Webster outlined the APC, Anti thrombin III, TNF antibody study (MONARCS) and the low dose hydrocortisone / fludrocortisone trial. He went on to talk at greater length on the Phase 2 study of recombinant human APC which has 2 dose durations and two dosages (131 patients). This trial showed a worthwhile reduction in mortality (worthwhile in human terms that is, whether it will be worthwhile - that is - affordable in terms of financial cost remains to be seen!). The PROWESS trial, a much bigger affair involving 11 countries and 50 sites was then discussed. By the time that this Newsletter is published the results of this trial will be known.

Peter Wallace and Jim Dougall then rather stole Nigel's limelight by arriving, impeccably dressed, on their way to a Burns Supper!

All in all this meeting provided great interest in many areas from the practical detail of how not to get into trouble doing PCT's, though some soul-searching discussion on how to manage death in the ICU, to cutting edge research in sepsis.

Research Meeting – Thursday 25th January 2001

This, the first research meeting to preceed the annual scientific meeting was considered a great success. This report will be brief as much of the work is now either published or has been presented at other meetings, but it will give you a flavour of the meeting and I hope encourage more to join us at the Thursday afternoon research meeting and the dinner, which follows it.

The meeting was chaired by John Kinsella, and was opened by Tim Walsh who presented the work that the transfusion group has been doing on the importance of the age of transfused blood. He presented a useful review of the literature relating to this topic. He was followed by Guy Fletcher who presented the results of the "Hemoglobin Day" survey wherein a questionnaire was sent to 25 intensive care units to capture data on their blood usage on 28th February of the previous year. Magnus Garrioch then tried to drum up more members for the transfusion interest group and to widen the geographical base of it. Following this plea they outlined studies, which they foresee doing in the future. Other ideas for the blood research group will be welcomed by Magnus – magnus.garrioch@virgin.net.

The floor was then taken by David Noble, introducing the Nutrition Sub Group. He was supported first by Peter Andrews, and then by Sandy Binning. Peter discussed the role of glutamine, looking at various studies and a meta analysis. He estimated the increased cost of glutamine supplementation and discussed how value for money might be increased. He went on to discuss the study centered on Aberdeen looking at the effects of glutamine-enhanced feeds on length of stay, need for IPPV and antibiotic usage.

Sandy presented some study results on Oxepa, mainly looking at patients with ARDS. Time on IPPV, time in ICU and percentage of patients with new organ failures were primary outcomes; Oxepa looked like value for money! He then outlined a local study planned to compare Oxepa and "standard" enteral nutrition.

Dr Paul Hebert then made us rather jealous when he told us about the Canadian critical care trials group. The Royal Hotel in Bridge of Allen is warm and comfortable, but I do not think that there were many of us who would not have swapped it for a meeting on the shores of Lake Louise, with skiing thrown in! They now have a big annual spring meeting supported by a major autumn meeting and smaller meetings at intervals through the year. Dr Herbert outlined how the meetings had been the catalyst for improvements in standard of care, collaboration and education. The group also provided a facility for intensive peer review of protocols and trials. He emphasized that all their studies were initiated by clinical investigators, not industry, and discussed how they managed to fund this with support from peer review agencies, the Canadian Intensive Care Foundation, Hospitals and direct support from members. He was complimentary about our fledgling efforts at intensive care research.

Mark Worsley then chaired a session in which members of SICS presented their own research. Kevin Rooney (then a SpR in the Southern General, Glasgow) presented a study which he had done involving all 25 ICUS participating in the audit and looking at blood sugar control (highly variable, should be better!). This was followed by Mrs Irene Croal, a lecturer at Queen Margaret College, Edinburgh and physiotherapist at Edinburgh Royal Infirmary who presented a strategy to facilitate recovery following intensive care after first discussing the physical and psychological reasons for prolonged recovery. Staff Nurse Marie Etchells, from Ninewells, then reminded us of the difficulties in communicating with ICU patients and presented her computerized communication aid for patients in ICU – a collaborative project with the engineering and physical sciences research council. The meeting concluded with a presentation by Dr Judith Wright on the long-term outcome from Intensive Care, which showed a far higher mortality at 5 years than we predicted.

Following a 'wash and brush up' a large group gathered for the annual dinner which, as far as I can recall, went on long into the night!

Report From Research Group, John Kinsella

The Scottish Intensive Care Society Research Group continues to develop. The second research meeting prior to the January SICS meeting was again heavily subscribed and the combination of renowned national and international guest speakers along with the local presentations was a formula that seemed to be satisfactory. In addition the venue enabled social and research discussions to continue in the evening and this also contributed to the success of the meeting.

Several areas of research continue to develop. The continuing co-operation between units with the support of the SICS in general and the Audit group in particular are encouraging for the long term success of multi-centre research in Scottish Intensive Care. The main themes are the blood group with the completion of the ATICS project and the development of nutrition research and the submission of a major grant application to the MRC that is has gone to the final stages of the application process and the outcome of this process is due in June. There is also an optimisation study submitted for MRC funding. It is clear that a successful outcome to these applications would greatly enhance the status of intensive care research in Scotland and would lead to improved chances of greater funding in future.

In addition to the multi-centre research proposals there is considerable the continued audit activity. Units and individuals continue to be very active in research and publication and the SICS is developing an enviable reputation for the quality of the clinical and audit led research activity. It would be proposed to have, as last year, a meeting in September to review the current activity and plan the next research day in January, provided that the SICS council approves this.

Scottish Intensive Care Society Audit Group, Annual Audit Meeting

The Society's Seventh Annual Audit Meeting was held on Friday the 26th of October 2001 in the Education & Conference Centre at Stirling Royal Infirmary. The programme was varied and many of the topics generated vibrant discussion

Fiona MacKirdy commenced the meeting by welcoming delegates, extending this for the first time to staff from High Dependency Units (HDUs) around Scotland who helped make it the largest audit meeting to date, with over 90 delegates. She reviewed the various activities and issues that had arisen since the last meeting. These activities included a review of the Bed Bureau and proposed changes given at the Winter Pressure meeting held in Stirling in November 2000. Although not all these changes have been implemented, Fiona was able to demonstrate fluctuating patterns of daily occupancy during 2001, information that has been made available to the Scottish Executive and was regularly updated for part of 2001on the SICS's website. Future plans for the Bed Bureau include generating on-line trend data to assist the detection of increasing demand within Trusts, enabling prompt instigation of escalation policies.

Fiona informed the meeting that although the establishment of the bed bureau, via the NHSnet, has been invaluable, it has generated it's own set of problems for audit staff. Although no substitute for personal contact with each site, remote access from the central office to each client PC enables prompt on-line help, software upgrades and data downloads. As each client PC is now on it's hospital network, there are security issues with remote access. These issues have been taken up with IT at the Scottish Executive and it is hoped Trust IT Departments will provide remote access soon. Fiona also raised the issue of confidentiality and data protection. Ward Watcher now has a 'log off' facility available which enables all staff to have their own log-on password, if required.

The 2000 Annual Report was published on the website in January 2001. It is available for anyone to view on-line or to download from the site and view or print at their own convenience. This method of publication increases the accessibility of our results to all, as well as reducing printing and postage costs. The 2001 Report will also be published in this way. A list of downloads can be generated from the website demonstrating that Scottish ICU audit data are being reviewed by ICU staff throughout the UK, Europe, the Middle East, Australia & New Zealand as well as by various NHS and Government departments, Pharmaceutical companies and libraries.

The Audit Group was represented by Fiona and Dianne Currie at the ICS Spring Meeting in Bournemouth, June 2001. They brandished t-shirts emblazoned with the SICS logo at a table near registration, publicising the work and publications generated by the comprehensive collaboration of Scottish ICU staff.

Referring to the ARDS study, 1st prize was won at the ICS/Riverside meeting in December 2000 with an abstract on the ARDS results. The first paper has been submitted for publication and we await further word from the journal editor.

Further work about to be undertaken is survival analysis and deprivation analysis. Record linkage with the Information and Statistics Division at the SE will provide us with long-term survival and deprivation codes for analysis.

Data quality is always important. Dianne Currie, in her last few weeks with the Audit Group, carried out some validation in 3 units and Fiona highlighted some of the common errors and reiterated the importance of accurate data entry.

A questionnaire was added to the website in January 2001 giving you the opportunity to feedback

on the use of audit data, the annual report, the importance of the audit's continuation, the bed bureau and general comments on how things could be improved. Although responses may be biased, as only those genuinely interested in the audit may have bothered to respond, the responses were very positive and these were demonstrated graphically by Fiona. The comments fed back via the questionnaire have also been taken on board.

Finally, Fiona demonstrated one important addition to the website: a section containing information for relatives: a booklet produced by 'Brake' *What happens in an intensive care unit?* was placed on the website, with permission from the Brake Charity. In return they would like to be able to distribute the booklets to every ICU in Scotland. These, I am sure, will be gratefully received by the ICUs. Within days of this going on-line, one touching comment was emailed: Date: 24 Aug 2001, 22:13 *"An excellent website. My husband is in an ICU and critically ill and this has certainly helped me understand what is going on. I only wish I had found it before as it has been a devastating experience for him and for me. Thank you."*

There followed a session on organ donation, with **Mr Andrew Murday** from Glasgow Royal Infirmary's Cardiac Transplant Team the first of three speakers. He discussed the renewed interest in methods to increase the number of viable organs that become available for transplantation. In particular, his attention was on donor management before organ retrieval. At present, 98% of organ donors originate from ICUs and Andrew proposed an optimisation protocol for donor management within Scottish ICUs. Since this presentation, the protocol has been distributed to each ICU. It will be accessible on the website in the near future. **Gillian Haddow** from the Sociology Department at the University of Edinburgh presented the results of her study entitled 'Experiences, Attitudes and Belief Systems of Scottish Donor Families'. This study was conducted by structured interview and involved 19 donor families. The results included some interesting quotes from relatives about their experiences during this emotive time. **Cameron Howie** was the third speaker to contribute to the discussion of organ donation. He briefly reported on data in the current SICS database, raising more questions than the data could answer. He proposed modifying the audit software to create additional fields to facilitate an organ donation audit.

Tim Walsh from the Royal Infirmary of Edinburgh reviewed the work of the 'Audit of Transfusion in Intensive Care in Scotland' (ATICS). This study assessed haemoglobin levels and transfusion rates in 1,000 consecutive admissions to 10 ICUs in Scotland between 4th June and 12th September 2001. Data analyses are ongoing, although it is anticipated a Report will be available in Spring 2002.

Dr. Ahilya Noone, Consultant Epidemiologist from the Scottish Centre for Infection and Environmental Health (SCIEH), then presented 'A Surveillance of Hospital Acquired Infection, Prescribing and Antibiotic Resistance in Intensive Care Units'. Dr Noone highlighted the factors which contribute to the high rate of hospital acquired infection (HAI) and antibiotic resistance rates within the ICU, and confirmed the implications of this on length of stay, cost and outcome for patients. On behalf of SICS and SCIEH, Dr Noone proposed surveillance of incidence and trends of HAIs in ICUs. Delegates were asked to talk to Fiona if interested in conducting a pilot project.

A rather apt session on nutrition in the ICU followed, prior to lunch. **Sara Martin**, Lecturer in Dietetics at Queen Margaret University College, presented an 'Audit of Nutritional Practices & Opinions in Scottish ICUs'. The audit demonstrated use of enteral and parenteral feeding regimens within the intensive care setting and addressed nutritional assessment of the ICU patient, route of administration, types of supplement and glycaemic monitoring. In addition, the perceived and actual role of the dietician in ICU was examined. The topic of nutrition was continued by **Jennifer Darrien,** a 4th-year medical student speaking on behalf of Dr Andy Longmate from Stirling Royal Infirmary. In response to evidence from the literature, a change in nutrition practice in Stirling was implemented and Jennifer demonstrated a subsequent improvement in patient outcome.

A welcome break for lunch followed the morning session, after which **Cameron Howie** discussed the impact of early discharge from the ICU on patient outcome. The apparent negative impact of early discharge due to bed shortage was not supported when a multivariate analysis was performed, in particular when the consultant's expectation of survival is included. Indeed, when choosing a patient to discharge early, Cammie suggested perceived chance of survival influenced this decision.

The meeting continued with **Steven Young**, Obstetric Anaesthetist at Glasgow Royal Infirmary presenting an audit of Scottish ICU admissions due to pregnancy-induced hypertension. This patient group was found to have a low rate of mortality and, given this positive outcome, it was suggested improved high dependency care within the maternity units might prove an appropriate alternative to admissions to ICU.

Following this, **Alan Davidson** presented work conducted by Sandra Donaldson, former

Clinical Trials Co-ordinator at the Victoria Infirmary, 'Timeliness of Referral to ICU'. Alan demonstrated negative outcome on patients admitted to ICU 'late'. Amongst other factors, respiratory rate and SaO_2 were discussed in terms of best predictors of physiological deterioration and it was interesting to note that 29 – 51% of patients did not have a recorded respiratory rate at each time point of the study. Alan proposed that implementation of a scoring system in wards would ultimately result in earlier recognition and subsequent timely ICU intervention.

In collaboration with the Scottish Haematologists, the Audit Group is retrospectively reviewing haematology admissions. This review follows queries by various clinicians about the outcome of haematology admissions in ICU and the subsequent modification of the dataset to include both hospital and ICU diagnoses a couple of years ago. **Brian Cuthbertson**, Senior Lecturer reviewed the work currently being undertaken in this area.

Of interest to the HDU representatives at the meeting, **Fiona** provided a progress report of developments in HDU audit. The results of the SICSAG telephone survey of HDU in April 2000 were incorporated in *Better Critical Care* and that Report recommended that audit of HDU as well as ICU should be undertaken. Thereafter, as many HDUs as were known were contacted, seeking interest in developing a national dataset and participating in audit. As a result, a Steering Group comprising anaesthetists, surgeons and nurses (lack of physicians - not a result of trying!) was set up and met twice, early in 2001. After varied discussions, a minimum dataset was proposed and presented to over 70 HDU staff at a meeting in Glasgow on 15th June. The proposals were very positively received by all attendees. Fiona indicated that the finances of the SICS Audit would enable up to 24 HDUs to have a single-user license for Ward Watcher until the end of March 2002. With money saved previously from commercial sponsorship, we have been able to employ 1 WTE to assist in installing audit software and training staff in it's use for a fixed period of time. Both Lynn Gillies and Alison MacLeod, have secured a secondment from their current posts as HDU nurses until June 2002 to assist in the HDU audit and other work with the Audit Group.

The Clinical Standards Board for Scotland is already in the process of developing standards within Anaesthesia. The Society agreed it would be prudent at this time to offer intensive care staff the opportunity to enhance their skills in the critical appraisal of the literature and attempt to develop guidelines on behalf of the Society. A small Standards Group was set up which organised a workshop, the *Hitch-hiker's Guide to Evidence Based Medicine* in the ICU. This was open to ICU staff and was attended by a group of 20 early in October. **Chris Cairns**, an SpR in Edinburgh, reported on this workshop, the outcome of which being that attendees agreed to undertake a review of 3 ICU topics with the aim of developing guidelines on behalf of the SICS.

A session on sepsis followed the afternoon coffee break. Firstly, **Alan Davidson** gave a comprehensive and interesting review of the epidemiology of sepsis, concluding that sepsis in ICU was a *Major Health Challenge*. He included in his presentation tabulated data of the Scottish results to date. These are limited to sepsis in the first 24-hours of intensive care and fail to provide the true incidence and outcome from this severe aetiology. Detailed information had been disseminated to ICU staff about a proposed sepsis study during August – October, which would run in a similar way to the ARDS study. **Fiona** reviewed a dataset which would be incorporated into the audit software to prospectively identify the first episode of sepsis in all patients, as a temporary adjunct to data collection. With recent publications on therapeutic interventions in sepsis, having such data will also assist in resource planning for this important patient subgroup. She outlined funding and remuneration to the units and the SICS. As always, participation in this study is dependent on the enthusiasm of ICU staff and is not obligatory. Additional funding for this study has enabled the employment of Gill Harris, an experienced ICU nurse seconded from Raigmore ICU, to conduct data validation in the majority of units. Lynn Gillies will also undertake validation in a minority of units.

Simon Mackenzie raised the issue of future funding and organisation of the audit group. Since the October meeting, it has been confirmed funding from the Clinical Effectiveness Programme Subgroup will cease in March 2002. Funding of the audit group in future will be through adjustment of Board annual allocations. Funding of the HDUs has yet to be finalised.

Finally, **Cameron Howie** sadly announced his retiral as Lead Audit Clinician for the group. I am sure we would all like to extend our thanks to Cammie for his invaluable contribution to the audit since it commenced. A successor to Cammie will be appointed in January along with restructuring of the steering group.

Further changes to the group include the resignation of Dianne Currie, Audit Sister since 1999. Dianne replaced Sandra Donaldson as Clinical Trials Co-ordinator at the Victoria Infirmary. Information about the audit, software, bed bureau and meetings continue to be posted in the forums section of the website. This is to facilitate communication between the office and ICU staff. These forums are there for

your use as well. We have been compiling a list of emails since August in an attempt to aid communication, however, the main contact audit staff have with each unit continues to be the Lead Audit Clinician. In this way it is hoped any news will be disseminated to other staff.

President's Report, Peter G M Wallace

This report is written shortly after the highly enjoyable Annual Meeting of the Society in Stirling and it is clear from the success of that occasion that the Society is in good health. The new format with respect plus invited speakers on the Thursday plus scientific presentations and workshops on Friday worked well and attracted considerable support from members and also from the trace exhibitors. We were grateful for support form Lilly for the annual dinner on Thursday and consumed until the early hours.

The Society's activities and influence continue to expand. The audit and bed bureau are a crucial part of evaluating and planning critical care in Scotland and Cammie Howie is to be congratulated on finally obtaining long term funding from the Scottish Executive. Simon Mackenzie will now supervise the audit, which should shortly extend into high dependency but Cammie has our gratitude and respect for his unique contribution in setting up the audit. I should also give a vote of thanks to Fiona MacKirdy and her colleagues back at base who actually keep the system working. A Guideline Development Group has been established to encourage evidence based activities and it is likely that guidelines will be proposed to facilitate the introduction of Activated Protein C if and when this is licensed in the UK. The Research and Education Groups continue their activities as reported elsewhere in the Newsletter and again the success of these initiatives depend very much on the enthusiastic hard work of members.

My term of office is now complete and the last two years have gone exceedingly rapidly. I have been remiss in failing to apply more pressure for additional critical care resources at a national level. Although last winter appears to have been navigated without significant catastrophe the service is under considerable strain and the increased funding available in England over the last two years has not been reciprocated in Scotland. While such funding is a political matter it will also be incumbent on us professionally to assess the English initiatives in networking and outreach and apply any lessons in Scotland. There is much to do and it is, therefore, a particular pleasure for me to hand over to such a capable successor as Dr Alfie Shearer. Alfie was an originator of the original Scottish Intensive Care meetings which indirectly begat the Society and he has a wide experience and fecundity from which the Society will benefit and I am certainly that he will be a most successful President. I wish him well and I thank all Council members in particular the Honorary Secretary, Dr Plenderleith, for their support over the last two years. As I head off for retirement may I thank you all for allowing me the privilege of serving as your President.

EDITORIAL, Bill Easy

This Newsletter has appeared rather later than previous ones as I decided that it would be preferable to mail it to you this year rather than leave it for collection at the Scientific Meeting. Alf Shearer said that he always found the Scientific Meeting a stimulating deadline to get the newsletter finished; he was of course quite right

A few years ago, there was only the Scientific Meeting and a few local activities to report; now I find I am not looking for copy to fill the newsletter, rather, I am wondering what I can leave out and what can be drastically edited. Rapidly following on the Scientific Meeting came the SICSAG (Audit) Meeting, originally in Perth, now also held in Stirling. We have now been joined by a number of multi-centre studies, the Research Group, Education Group and a Clinical Standards Group as well as the regional societies.

The Society is still evolving at a great rate; this is witnessed by the onset of HDU (as opposed to ICU) audit, transport medicine courses, Winter Pressure meetings etc., all of which provide an educational core, an exchange of differing views from the rostrum and a forum for informal discussions with our peers. All this goes to show how much of a lead your Society now takes in the active planning and management of critical care in Scotland.

There have been major changes in the society too, Peter Wallace has handed over the presidency to Alf Shearer and Cammy Howie has (I think) finally relinquished his last touch on the news, having with great political acumen and quite secured

funding for continuing audit and the bed bureau (tho' watch this space!). Last year saw the admission of nurse members to the society – there are now 15 associate members. It is so good to see an expanding interest from our nursing colleagues (I think that one at least of these associate members is a pharmacist). Membership for associate members is only £10 a year, so should encourage greater membership in this area.

The Scientific Meeting in January 2001 was preceded by a research meeting on the afternoon beforehand. This was a very successful innovation and, apart from the intrinsic merit of the meeting (reported elsewhere in the Newsletter) resulted in a modest increase in members at the AGM, and a large and very welcome increase in those carousing at the Annual dinner. This was repeated in 2002 with an even more pleasing increase in support for both these functions, so I think the format is here to stay.

I anticipate that the next Newsletter will be my last as editor, and hope that a keen volunteer embryo journalist will be in this place for the 2004 edition.

Scottish Transplant Group, Jim Dougall

The Scottish Transplant Group was set up in 1999 at the instigation of the Scottish Executive Health Department. It was seeking advice regarding organ donation and transplantation and sought representation from the Scottish Intensive Care Society. Despite advances in the field of transplantation in the last 20 years, transplantation rates have been falling and the group has examined some of the problems surrounding the shortage of donor organs. The donor rate per million population in the UK is around 13 (33 per million in Spain). Intensive care clinicians have been interested and involved for many years in organ retrieval issues. The Scottish Intensive Care Society audit is expanding with an improved auto data set. The audit should also now cover all the general units and neurosurgical intensive care in Scotland. Many will already be aware of the extra fields intended to provide information that might lead to increasing requests for organ donation, improved acceptance rates and lead to an increase in donation of solid organs and other tissues. As a side issue it may also improve the impetus to maximise the management of patients after brain stem death and pre-donation.

The Scottish Transplant Group should publish a report in the very near future. Among the issues being considered include a dedicated organ retrieval team which would include an anaesthetist, probably at consultant level, who would be an integral part of this team.

Under the auspices of UK Transplant several donor liaison sisters have been appointed. In Spain every hospital has a medically qualified transplant co-ordinator. This, however, is an expensive option and these donor liaison sisters are seen as a halfway house to improve organ donation rates and will work in conjunction with the current transplant co-ordinator network.

Non-heart beating donation is likely to figure prominently in new initiatives with cannulae being inserted into the femoral vessels immediately after death. A ruling on the legality of this in Scotland is awaited. Whether these programmes, once funded, are initially introduced in intensive care or in A & E departments remains debatable but in some areas such as Newcastle and Leicester they have demonstrated that the number of kidney transplants can be increased by up to 20%. Organ survival appears to be at least as good as with live donors.

Elective ventilation is illegal at present. It was felt by the group that reintroduction would not be feasible. This is in keeping with the views strongly held by most members of our society. Issues of consent may be involved here.

The Transplant Group report will again raise the profile of transplantation within Scottish intensive care. A recent SICS audit demonstrated a surprising variation between ICUs in the proportion of brain stem death cases which resulted in successful donation. Hopefully a combination of the above initiatives will help to increase the availability of suitable organs for an ever-increasing number of needy donors. It remains important that the intensive care community continue to engage in the dialogue.

South-East Scotland ICU Group, Charles Wallis

The group has had an active year. Four meetings were held in 2001, fewer than formerly but attendance has improved thus reversing a previous decline. Continued support from the trade has resulted in a strong financial position. At the first meeting, rescheduled due to heavy snow, Dr Nick Hirani from respiratory medicine gave a fascinating insight into the pathophysiology of ARDS drawing from his work on animal models. At St. John's Hospital Patrick Armstrong and Mike Brockway

presented a case of severe hypothermia requiring extracorporeal rewarming using a haemofilter and a level-one cobbled together. This generated the usual heated discussion from the floor. The Sick Children's team presented a series of cases of severe Group A streptococcal sepsis complemented by an adult case from the Western General, with input from the microbiologists. This followed a cluster of such infections last winter in the Lothians reminding us that these organisms remain potential killers.

The final, major meeting was held in November 2001. Following the success of last years meeting with a visiting speaker and a free sit down meal we repeated the format at the Lister Post Graduate Centre with good results. Continuing the sepsis theme Professor Jonathan Cohen from the Hammersmith Hospital spoke about Severe Gram Positive Infections giving a fascinating insight into the most recent research in the area. Dr Alistair Lee (Edinburgh Royal) continues as chairman, Dr Alasdair Mackenzie (Queen Margaret Hospital) as treasurer but I am stepping down as secretary to be replaced by Dr Dave Semple from Edinburgh Royal.

West of Scotland ICS, Annual Report 2001-2002, Phil Oates

This year started with a change of personnel at the heart of the society. Dr Jim Dougal departed after his three-year tenure as President as did Dr Alan Davidson as secretary. They take with them the society's gratitude for their services, as does Sandra Donaldson whose organisational work for the Society will be sorely missed. Dr Brian Cowan is the Society's new president and I have taken over the responsibilities of secretary.

The year to date has been very successful with membership up and good attendance at our meetings. Our programme started with the October meeting at which Mr Andrew Williams MBE from the Hazard Reduction Unit in Porton Down gave a fascinating if slightly chilling presentation titled "Managing the Consequences of Chemical and Biological Attack". The topic had become horribly topical in the wake of the events of September 11th and the meeting was exceptionally well attended. As usual our second meeting in February was the Registrars_Presentation. Dr Lisa McGarrity from Stobhill hospital won first prize for her presentation: Respiratory Failure Secondary to Wound Botulism in an Intravenous Drug User. The third and final meeting of the year is scheduled for April 23rd when Dr Alan Peacock will educate us on "The Heart and Lungs in Extreme Altitude". This final meeting will be combined with the AGM and will be held at the Walton Conference Centre (Southern General Hospital) and not the usual venue of the Ebeneezer Duncan Centre.

Meetings are open to all staff involved in Intensive care, members and non-members alike. There is a complimentary hot buffet before, a CME point during and an optional beverage at a local hostelry afterwards. Dr Kinsella (Treasurer) informs me this last is not complimentary!

Membership enquiries should be made to me: Phil Oates, Department of Anaesthesia, Southern General Hospital. Tel: 0141 201 1658, e:mail philip.oates@sgh.scot.nhs.uk

Education Report 2001-2002, Sally Crofts

We are pleased to report that we held a course in Intensive Care Medicine in November 2001 in Stirling. The course was attended by ten enthusiastic trainees (9 anaesthetists and one paediatrician) who enjoyed two days of high quality lectures and workshops. The two memorable highlights were the Malcolm Daniel / Rona Patey "evidence based medicine made easy" - enlightening to *all* of us present, and the inaugural use of the simulator in postgraduate ICM training. We plan to continue the courses with an annual course in Stirling in the spring – all are welcome.

With the introduction of Competency based training and assessment to ICM we feel this is an area that a group of us should try to unravel and so a meeting of Education Supervisors in ICM is planned shortly.

There are now six SpRs in ICM in Scotland and we will be arranging a get together in the next couple of months to look at various issues.

THE SCOTTISH INTENSIVE CARE SOCIETY

The society now has 227 members of which the majority (212) are full (medical) members. There are 15 associate members of whom the majority are nursing staff. We have one honorary member, Fiona MacKirdy.

The Society is managed by a Council and the office bearers are:

President	Dr Alfred Shearer, Dundee
Past President	Dr Peter Wallace, Glasgow
Secretary	Dr Louie Plenderleith, Glasgow
Newsletter Editor	Dr William Easy, Vale of Leven
Chairman of Research Group	Dr John Kinsella, Glasgow

These are ex officio unless they are already elected as regional representatives.
The elected regional representatives are:

West of Scotland

Dr James Dougall	Glasgow
Dr Alexander Binning	Glasgow
Dr Philip Oates	Glasgow

East of Scotland

Dr Simon Mackenzie (also chairman of audit group)	Edinburgh
Dr Michael Fried	Livingston

North of Scotland

Dr David Noble (also treasurer)	Aberdeen
Dr Sally Crofts (also Chairman Education Committee)	Dundee

Trainee Representative

Dr Ian Mellor	Dundee.

The Office Bearers of the Regional Societies are:

West of Scotland

Chairman	
Secretary	Dr Phil Oates

SE Scotland

Chairman	
Secretary	

Remember to check out the web-site: www.scottishintensivecare.org.uk